REMARKS

Reconsideration and allowance are respectfully requested in light of the above amendments and the following remarks.

Proposed changes to Figs. 1-4 are submitted herewith to overcome the objections thereto.

Claims 1-9 have been cancelled in favor of new claims 10-17. Support for the subject matter of the new claims is provided in the original claims, Figs. 5-7, and the specification on page 11, lines 10-27, and page 15, line 14, through page 18, line 16.

Claims 1, 3, 4, and 9 were rejected, under 35 USC §102(e), as being anticipated by Prescott (US 6,188,678). Claims 2 and 6 were rejected, under 35 USC §103(a), as being unpatentable over Prescott in view of Zehavi et al. (US 5,691,974). Claim 5 was rejected, under 35 USC §103(a), as being unpatentable over Prescott in view of Dunn et al. (US 5,600,706). Claims 7 and 8 were rejected, under 35 USC §103(a), as being unpatentable over Prescott in view of Zehavi and further in view of Yoshida et al. (US 5,886,987). To the extent these rejections may be deemed applicable to new claims 10-17, Applicants respectfully traverse.

The Applicants submit that the applied references, considered alone or together, fail to teach or suggest the combined features recited in claim 10 of: (1) despreading a midamble of each of a plurality of received transmission signals,

each comprising a separately spread signal, transmitted in parallel by separate antennas of a base station; (2) measuring the reception power of each despread midamble; (3) combining the measured reception powers of the despread midambles to obtain a combined reception power; and (4) controlling an uplink transmission power according to a propagation loss, which is the difference between the transmission power used by the base station apparatus to transmit the transmission signals and the combined reception power.

Prescott discloses controlling downlink/uplink transmit power for a channel in accordance with the receive power of signals in the uplink/ downlink channel (Prescott col. 4, lines 41-48). According to Prescott, the downlink and uplink channels are partially correlated such that a change in the propagation state of one is indicative of the propagation state in the other channel (col. 4, lines 48-52). Making use of this correlation, Prescott's invention permits a control loop for the downlink/uplink channel to respond to changes detected in the uplink/downlink channel so as to reduce the amount of time the control loop would require to respond to changes detected only in the downlink/uplink channel (col. 4, lines 53-56).

However, Prescott does not disclose or suggest measuring and combining the receive powers of signals received in a plurality

of orthogonal channels, as recited by claim 1. As a result, it necessarily follows that Prescott cannot suggest the claimed feature of controlling an uplink transmission power in accordance with the combined receive powers of the orthogonal downlinks.

Zehavi discloses weighting the pairwise product of I and Q signal components of each of a plurality of channels relative to the channel's average receive power (Zehavi col. 5, lines 30-31). Then, the weighted pairwise products for each channel are summed over multiple orthogonal codes (col. 5, lines 31-33).

The Applicants respectfully submit that the Office Action (see page 5, lines 3-4) has misinterpreted Zehavi's description in column 5, lines 31-34, as disclosing weighting and summing the average received power in a CDMA system. Zehavi does not disclose summing the power of signals received in a system. The correct grammatical interpretation of Zehavi's disclosure is provided in the preceding paragraph. Therefore, Zehavi does not supplement the teachings of Prescott with respect to the above-described features distinguishing claim 10 from the applied references.

Dunn is cited in the Office Action only for disclosing multiplying orthogonal data by the same spreading code for the purpose of reusing a spreading code in multiple channels (Office Action section 4). As a result, Dunn also does not supplement

the teachings of Prescott with respect to the above-described features distinguishing claim 10 from the applied references.

Yoshida discloses providing a plurality of orthogonal user signals to a user signal correlator 202 that despreads a desired user signal at the respective reception timings for each of a plurality of received orthogonal pilot signals (Yoshida col. 4, lines 58-61). Detectors 203-1 to 203-N each detect the despread desired user signal at an individual reception timing corresponding one of the pilot signals despread by pilot correlators 201-1 to 201-N (col. 5, lines 13-17). A user signal selecting/combining circuit 204 selects one of the detectors to provide the desired detected user signal based on the symbol powers detected by detectors 203-1 to 203-N (col. 5, lines 17-29). The detector that detects the greatest symbol powers for a period of time is selected to provide the desired detected user signal to power control signal detecting circuit 207 (col. 5, lines 24-34, and col. 7, lines 1-5). Power control signal detecting circuit 207 determines a power control signal on the basis of a signal-to-interference power measurement and transmits the power control signal to the communicating partner that transmitted the desired user signal (col. 7, lines 3-5 and 13-15). The communicating partner uses the power control signal to

control the transmission power applied to the user signal (col. 6, lines 61-65).

In summary, Yoshida discloses detecting the symbol power of a single, despread user signal at multiple reception timings. The reception timing determined to provide the greatest symbol power is chosen as the timing for detecting the user signal and for generating a power control signal from the received user signal. Thereafter, the power control signal is transmitted to the communicating partner that transmitted the user signal for use in regulating the transmission power applied to the user signal.

As is the case with the other applied references, Yoshida does not teach or suggest measuring and combining the receive powers of signals received in a plurality of orthogonal channels for the purpose of transmission power control. As a result, it necessarily follows that Yoshida cannot suggest the claimed feature of controlling an uplink transmission power in accordance with the combined receive powers of the orthogonal downlinks. Moreover, Yoshida's power control signal does not control an uplink transmission power; instead, it controls a downlink transmission power.

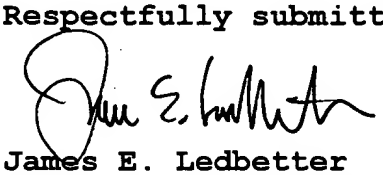
In accordance with the above discussion, the Applicants submit that the applied references, alone or together, fail to

teach or suggest the above-noted subject matter defined by claim 10. Independent claim 14 similarly recites the above-described features distinguishing apparatus claim 10 from the applied references, but with respect to a method. For similar reasons that these features patentably distinguish claim 10 from the applied references, so too do they distinguish claim 14. Therefore, allowance of claims 10 and 14 and all claims dependent therefrom is warranted.

In view of the above, it is submitted that this application is in condition for allowance and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,



Date: July 7, 2005
JEL/DWW/att

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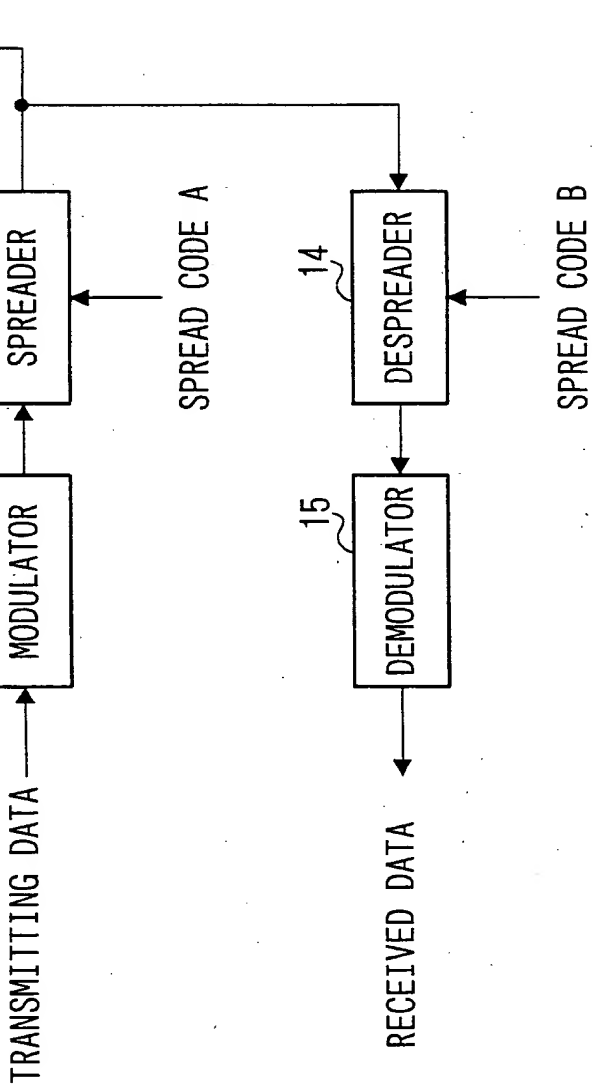
IN THE DRAWINGS

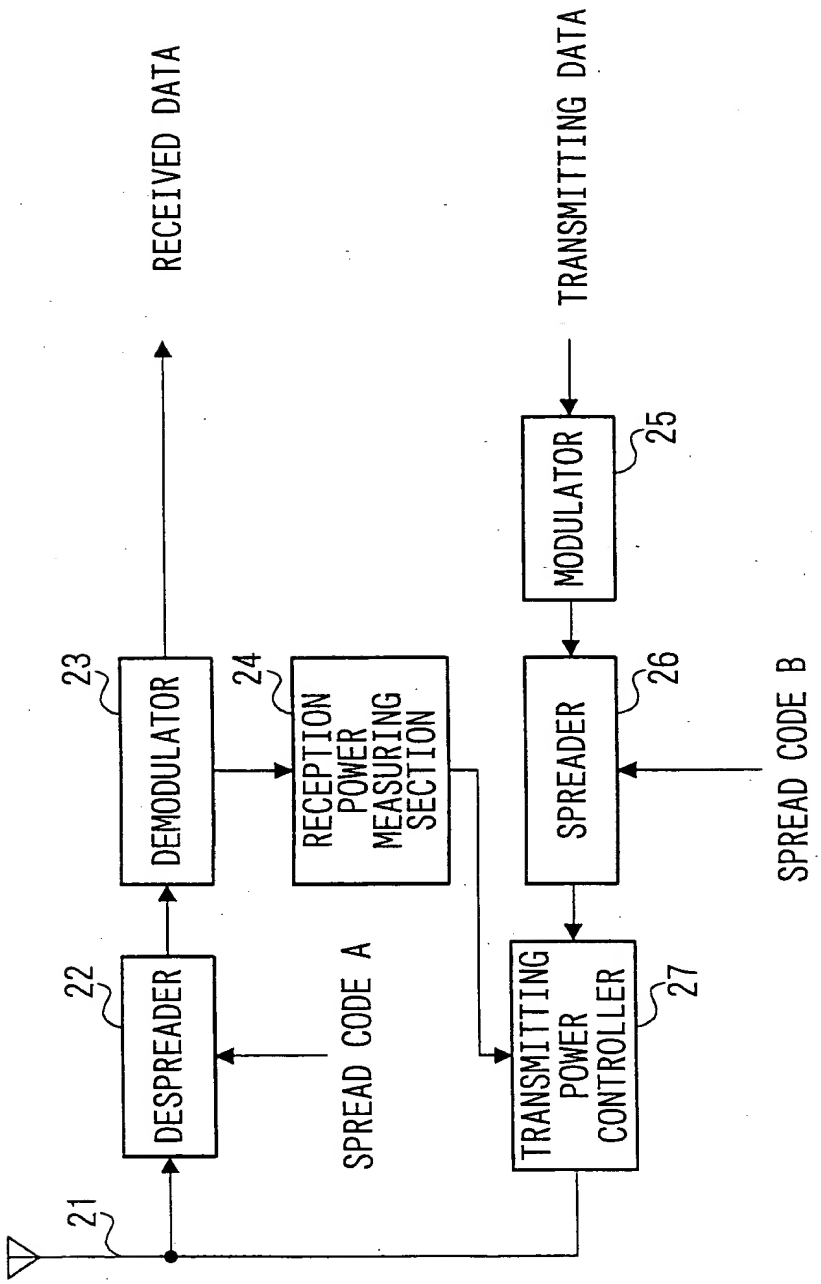
Proposed changes to Figs. 1-4 are submitted herewith, with a Letter to the Official Draftsman.

JUL 07 2005
PATENT & TRADEMARK OFFICE



RELATED ART

FIG. 1



RELATED ART

FIG. 2

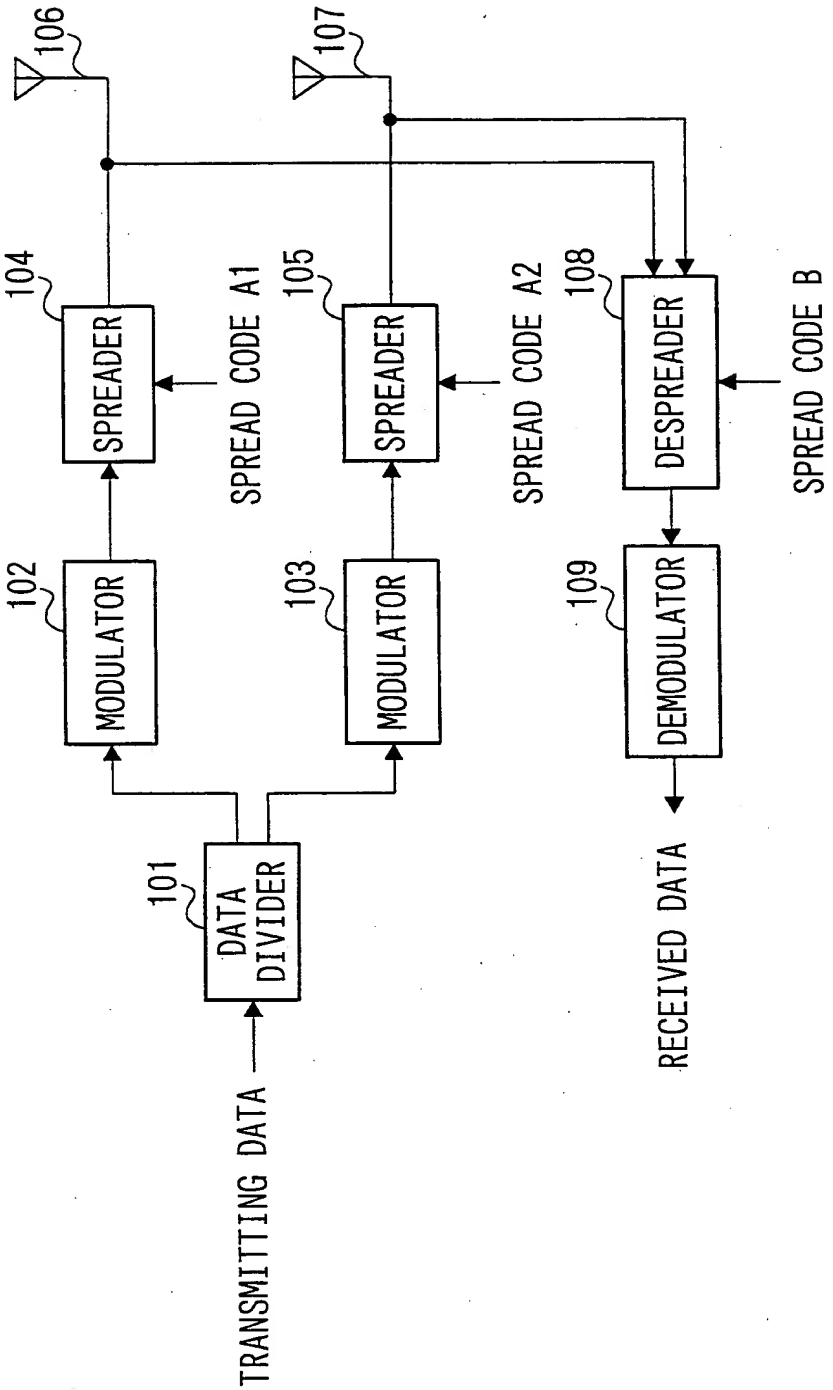
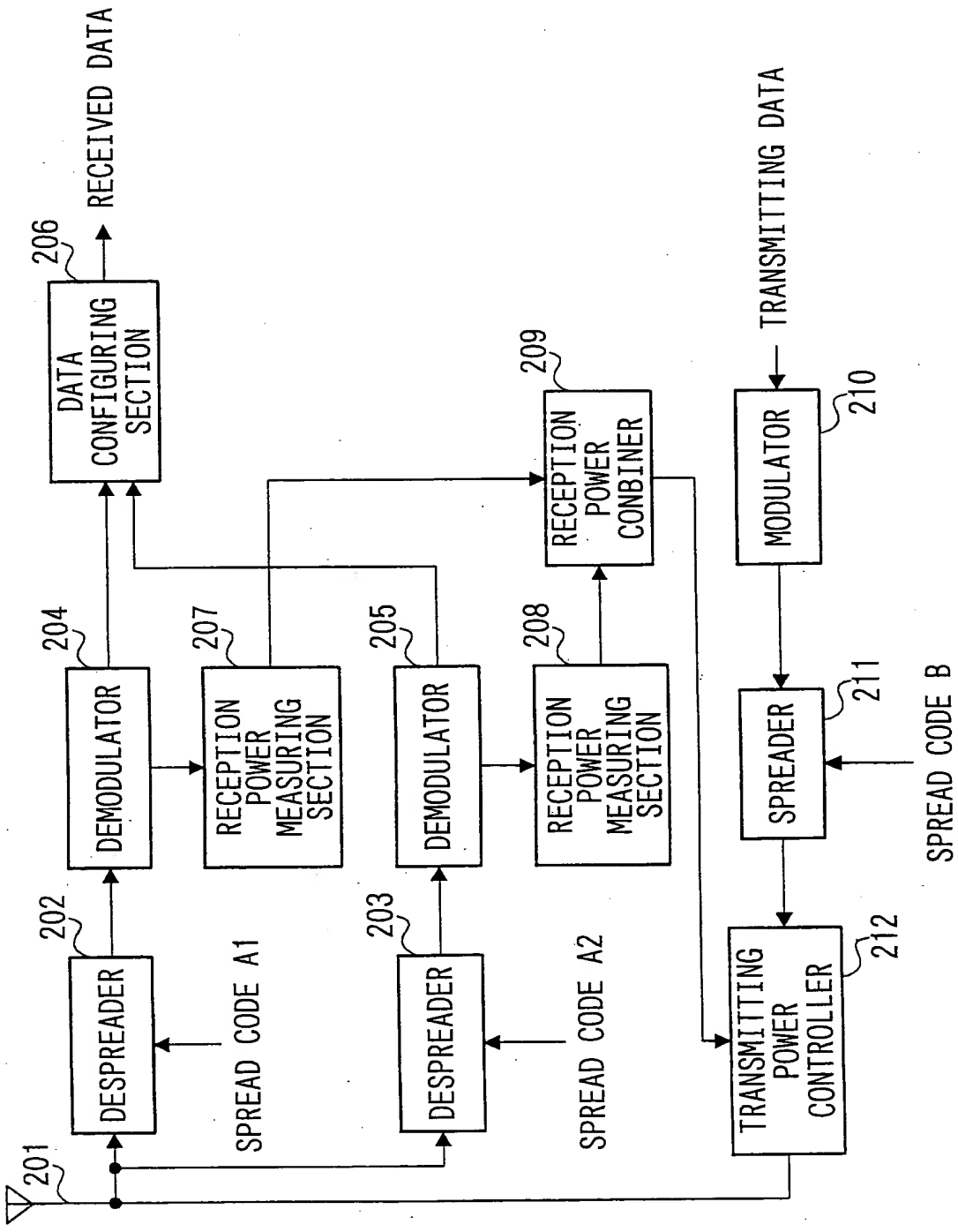

106
107
104
SPREADER
SPREAD CODE A1
105
SPREADER
SPREAD CODE A2
108
DESPREADER
SPREAD CODE B
102
MODULATOR
103
MODULATOR
109
DEMODULATOR
101
DATA DIVIDER
TRANSMITTING DATA
RECEIVED DATA

FIG. 3


RECEIVED DATA
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DATA CONFIGURING SECTION
TRANSMITTING DATA
209
RECEPTION POWER CONBINER
210
MODULATOR
204
DEMODULATOR
207
RECEPTION POWER MEASURING SECTION
205
DEMODULATOR
208
RECEPTION POWER MEASURING SECTION
211
SPREADER
SPREAD CODE B
202
DESPREADER
SPREAD CODE A1
203
DESPREADER
SPREAD CODE A2
212
TRANSMITTING POWER CONTROLLER
201

FIG. 4